

An Adaptive Coding Pass Scanning Algorithm for Optimal Rate Control in
Biomedical Images

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Abstract

High-efficiency, high-quality biomedical image compression is desirable especially for the telemedicine applications. This paper presents an adaptive coding pass scanning (ACPS) algorithm for optimal rate control. It can identify the significant portions of an image and discard insignificant ones as early as possible. As a result, waste of computational power and memory space can be avoided. We replace the benchmark algorithm known as postcompression rate distortion (PCRD) by ACPS. Experimental results show that ACPS is preferable to PCRD in terms of the rate distortion curve and computation time.

Keyword : Image Compression, ACPS, PCRD